



HARVARD UNIVERSITY.



LIBRARY

OF THE

MUSEUM OF COMPARATIVE ZOÖLOGY.

6110.

GIFT OF

The Society.

May 10. 1897 - May 16. 1904.

6110

THE
THIRTY-SECOND ANNUAL REPORT
OF THE
BOARD OF DIRECTORS
OF THE
ZOOLOGICAL SOCIETY
OF PHILADELPHIA.

(INCORPORATED MARCH 21ST, 1859.)

READ AT THE ANNUAL MEETING OF THE MEMBERS AND LOAN-
HOLDERS OF THE SOCIETY.

APRIL 28th, 1904.

PHILADELPHIA:
PRESS OF ALLEN, LANE & SCOTT,
Nos. 1211-1213 Clover Street.

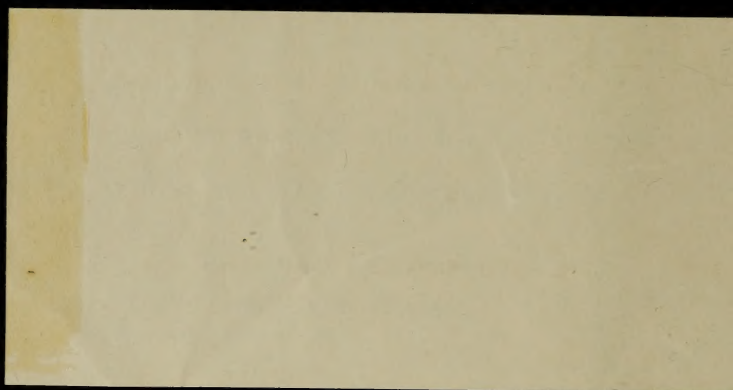
1904.

In case of error or change in the address of this enclosure a favor will be conferred upon the Society by sending notice to the Secretary.

ZOOLOGICAL GARDENS,

34TH ST. AND GIRARD AVE.

PHILADELPHIA, PA.



MAY 16 1904

THE
THIRTY-SECOND ANNUAL REPORT
OF THE
BOARD OF DIRECTORS
OF THE
ZOOLOGICAL SOCIETY
OF PHILADELPHIA.

(INCORPORATED MARCH 21ST, 1859.)

READ AT THE ANNUAL MEETING OF THE MEMBERS AND LOAN-
HOLDERS OF THE SOCIETY.

APRIL 28th, 1904.

PHILADELPHIA
PRESS OF ALLEN, LANE & SCOTT,
Nos. 1211-1213 Clover Street.
1904.

BOARD OF DIRECTORS:

CHARLES PLATT (1886),
President,

J. VAUGHAN MERRICK (1872),
Vice-President,

WILLIAM H. MERRICK (1873),

GEN. I. J. WISTAR (1873),

PROF. HENRY C. CHAPMAN, M. D. (1881),
Corresponding Secretary,

HENRY T. COATES (1887),
Treasurer,

CHARLES M. LEA (1889),

CHRISTIAN C. FEBIGER (1890),

SAMUEL G. DIXON, M. D. (1892),
Vice-President,

J. BAYARD HENRY (1892),

ARTHUR ERWIN BROWN (1897),
Recording Secretary

THOMAS BIDDLE, M. D. (1898),

THOMAS DEWITT CUYLER (1900),

OWEN WISTER (1900),

CHARLES PLATT, JR. (1900),

CHARLES B. PENROSE, M. D. (1902),

D. M. BARRINGER (1902),

WILLIAM D. WINSOR (1903).

ASSISTANT SUPERINTENDENT.

ROBERT D. CARSON.

REPORT

OF THE

BOARD OF DIRECTORS.

PHILADELPHIA, April 28th, 1904.

The Board of Directors of the Zoological Society of Philadelphia presents to the members and loanholders its thirty-second annual report for the year ending February 29th, 1904.

GENERAL AFFAIRS AND FINANCES.

The number of members at the close of the year was:—

Annual members	216
Life members	1,294
Corresponding members	6
Honorary members	15
Perpetual members	254
Junior members	74
	<hr/>
Total members	1,859

The following is a report in detail of the admissions and receipts for the year:—

Adults (paying at gates)	159,899
Children (paying at gates)	49,908
Members (including Life and Annual Members, loanholders' annual, and complimentary annual tickets)	1,871
Loanholders' single tickets	13,534
Free admissions (charitable institutions, donors' tickets, &c.)*	3,802
Coupon tickets	318
Excursion tickets	4,272
	<hr/>
	233,604
	<hr/>

*In addition to these, 125,000 tickets were issued to the Board of Education, for the admission of pupils of the Public Schools.

*Monthly Record of Receipts from Admissions for 1903-1904,
with corresponding account for 1902-1903.*

MONTH.	1902-1903.	1903-1904.	COMPARISON.
March . . .	\$1,708 90	\$2,278 20	Increase . \$569 30
April . . .	2,254 30	3,207 25	" . 952 95
May . . .	4,567 20	4,646 50	" . 79 30
June . . .	3,299 35	2,642 00	Decrease . 657 35
July . . .	4,164 00	3,602 20	" . 561 80
August . .	5,992 95	5,779 15	" . 213 80
September .	3,457 95	4,850 65	Increase . 1,392 70
October . .	2,596 50	2,871 05	" . 274 55
November .	2,252 90	2,015 70	Decrease . 237 20
December .	677 40	663 70	" . 13 70
January . .	756 40	637 05	" . 119 35
February .	748 70	725 10	" . 23 60
	\$32,476 55	\$33,918 55	Increase . \$1,442 00

The death of Mr. Charles W. Trotter, a Director of the Society, took place on August 5th. Mr. Trotter became a member of the Board on December 17th, 1874, and had been one of its Vice-Presidents since 1894. For many years he had been Chairman of the Committee on Finance, and in that capacity, as well as through his wide knowledge of botany and horticulture, his long service to the Society was highly valued.

THE GARDENS AND MENAGERIE.

The whole number of animals in all classes exhibited during the year was:—

Mammals	648
Birds	1,011
Reptiles	1,304
Batrachians	41
	<hr/> 3,004

The following species were new to the collection :—

MAMMALIA.

PRIMATES.

1. *Macacus cyclopis* Swin. Formosan Macaque.

Hab., Formosa.

A male of this rare monkey was purchased on October 3d.

2. *Alouatta seniculus* (L.) Red Howling Monkey.

Hab., South America.

Another rare species was added by purchase on March 13th. By reason of their inability to endure captivity, the monkeys of this remarkable group are little known to the public. As is usually the case, the present specimen lived but a few weeks.

CARNIVORA.

3. *Felis javanensis* Desm. Javan Cat.

Hab., Java.

On August 2d a pair of this beautiful species, which is among the smallest of the cat family, was received from Carl Hagenbeck.

4. *Felis catus* L. European Wild Cat.

Hab., Europe and western Asia.

This fine cat was formerly abundant in wooded regions throughout its range, but is now found in continental Europe only in secluded localities in the central and southern portions. In Great Britain it survives only in wild parts of Scotland. A pair was received from Mr. Hagenbeck, but the female was unfortunately killed by her mate shortly after they were placed in a cage especially prepared for them.

5. *Felis lynx* L. European Lynx.

Hab., Europe and Asia.

On January 9th a fine male lynx, said to have come from Thibet, was purchased from William Bartels, of New York. The differences are by no means

great between it and the lynx commonly found in Europe, but the form seems to be that often known as *Felis isabellina* Blyth. The animal is remarkably tame, a condition not usual among the short-tailed cats.

6. *Galictis allamandi* Bell. Black-backed Grison.

Hab., northern South America.

Of several grisons in the collection, one has been identified as belonging to this species, which by many authors is not regarded as distinct from *G. vittata*. Its characters, however, appear to be quite distinct enough for recognition.

RODENTIA.

7. *Arctomys bobac* (L.) Siberian Marmot.

Hab., eastern Europe and Siberia.

A pair of these old world representatives of the "woodchuck" was purchased in August, but the male only reached the Gardens alive.

8. *Dipodomys spectabilis* Merr. White-tailed Kangaroo Rat.

Hab., western Texas to Arizona.

The first of this fine species received at the Gardens came on April 22d, from Pecos, Texas, and later on was followed by several other specimens.

UNGULATA.

9. *Potamochoærus porcus* (L.) Red River-hog.

Hab., west Africa.

On August 15th a female of this showy species was received from Carl Hagenbeck, being the first of the "bush pigs" ever owned by the Society. A female *Æthiopian* wart-hog was received with it.

AVES.

PASSERES.

10. *Turdus aliciaæ* Bd. Gray-cheeked Thrush.

Hab., eastern North America.

One specimen. Purchased.

11. *Copsychus saularis* (L.) Indian Dial-bird.
 Hab., India.
 One male. Purchased.
12. *Myiadectes unicolor* Sel. Gray Clarin.
 Hab., Central America.
 Two examples of this plain-colored member of the
 thrush family, much valued in its native country
 as a songster, were purchased in June.
13. *Phylloscopus trochilus* (L.) Willow Warbler.
 Hab., Europe.
 One specimen. Purchased.
14. *Motacilla flava* L. Blue-headed Wagtail.
 Hab., Europe.
 Three specimens. Purchased.
15. *Euphonia lanirostris* Laf. & D'Orb. Thick-billed Tan-
 ager.
 Hab., Panama to Bolivia.
 One specimen. Purchased.
16. *Euphonia pectoralis* (Lath.) Pectoral Tanager.
 Hab., Brazil.
 Two specimens. Purchased.
17. *Euphonia chrysopasta* Sel. & Salv. Bartlett's Tanager.
 Hab., South America.
 One specimen. Purchased.
18. *Coliopasser macrurus* (Gm.) Yellow-breasted Whydah-
 bird.
 Hab., west Africa.
 Two specimens. Purchased.
19. *Pæphila gouldiæ* (Gould.) Gouldian Grass Finch.
 Hab., Australia.
 One specimen. Purchased.
20. *Pæphila mirabilis* Hom. & Jacq. Beautiful Grass Finch.
 Hab., Australia.
 One specimen. Purchased.
21. *Passer luteus* (Licht.) Yellow Sparrow.
 Hab., northeast Africa.
 Two specimens. Purchased.

22. *Chrysomitris pinus* (Wils.) Pine Siskin.
Hab., North America.
Two specimens. Purchased.
23. *Poæcetes gramineus* (Gm.) Vesper Sparrow.
Hab., eastern North America.
One specimen. Purchased.
24. *Sturnella neglecta* Aud. Western Meadow-lark.
Hab., western United States and northern Mexico.
Several specimens received from Pecos, Texas.
25. *Quiscalus assimilis* Scl. Colombian Grackle.
Hab., Panama to Colombia.
One female. Purchased.
26. *Icterus mesomelas* (Wagl.) Yellow-tailed Troupial.
Hab., southeastern Mexico.
Two specimens. Purchased.
27. *Lamprocolius chalybeus* (Ehr.) Green Glossy Starling.
Hab., northeast Africa.
Two specimens. Purchased.

PICARIÆ.

28. *Rhamphastos culminatus* Gould. Lesser Cuvier's Toucan.
Hab., Colombia to Peru.
One specimen. Purchased.
29. *Guira guira* (Gm.) Guira Cuckoo.
Hab., South America.
One specimen from the Amazon. Presented by Mr.
Harry Nuding.

PSITTACI.

30. *Callocephalon galeatum* (Lath.) Ganga Cockatoo.
Hab., Australia.
Two pairs of this fine species. Purchased.
31. *Chrysotis vinacea* (Pr. Max.) Vinaceous Amazon.
Hab., southern Brazil.
One specimen. Purchased.

COLUMBÆ.

32. *Turtur chinensis* (Scop.) Chinese Turtle Dove.
Hab., eastern China.
Two specimens. Purchased.

33. *Leptoptila rufaxilla* (Rich. & Bern.) Red Under-winged Dove.
 Hab., South America.
 One specimen from Brazil. Presented by Mr. H. Nuding.

GALLINÆ.

34. *Pternistes leucoscepus* Gray. White-shafted Francolin.
 Hab., northeast Africa.
 Two specimens from Abyssinia. Purchased.
35. *Coturnix pectoralis* Gould. Pectoral Quail.
 Hab., Australia and Tasmania.
 Several specimens. Purchased.

HERODIONES.

36. *Ardea tricolor ruficollis* (Gosse.) Louisiana Heron.
 Hab., southern United States.
 Two specimens from Florida. Purchased.

ANSERES.

37. *Dendrocygna discolor* ScL. & Salv. Brazilian Tree Duck.
 Hab., South America.
 Two specimens from the Amazon. Presented by Mr. H. Nuding.
38. *Chaulelasmus streperus* (L.) Gadwall.
 Hab., Northern Hemisphere.
 One received from Brownsville, Texas.

REPTILIA.

CHELONIA.

39. *Cinosternum sonoriense* Lec. Sonoran Mud-turtle.
 Hab., southwestern United States.
 A mud-turtle received on September 5th as a gift from Mr. Herbert Brown, Yuma, Arizona, has been provisionally referred to this species, although the relations of the southwestern turtles of this genus are not yet fully known.

40. *Hydromedusa tectifera* Cope. Cope's Terrapin.
 Hab., southern Brazil and Argentina.
 One example of this rare species of side-necked terrapin was purchased July 9th.

LACERTILIA.

41. *Tarentola mauritanica* (L.) Moorish Gecko.
 Hab., southern Europe ; north Africa.
 Two specimens. Purchased.
42. *Agama inermis* Reuss. Harmless Lizard.
 Hab., north Africa.
 One specimen. Purchased.
43. *Agama stellio* L. Starred Lizard.
 Hab., Egypt to Asia Minor.
 Two specimens. Purchased.
44. *Cnemidophorus tessellatus* (Say.) Tessellated Lizard.
 Hab., southwestern United States.
 Several specimens received from Pecos, Texas.
45. *Cnemidophorus grahami* B. & G. Graham's Lizard.
 Hab., Texas.
 One specimen from Pecos, Texas.
46. *Lacerta muralis* Laur. Wall Lizard.
 Hab., southern Europe ; north Africa.
 Three specimens. Purchased.
47. *Lacerta galloti* D. & B. Gallot's Lizard.
 Hab., Madeira and Canary Islands.
 Two specimens. Purchased.
48. *Acanthodactylus syriacus* Boett. Spiny-toed Lizard.
 Hab., Egypt to Syria.
 One specimen. Purchased.
49. *Egernia cunninghami* Gray. Cunningham's Skink.
 Hab., Australia.
 Two specimens. Purchased.
50. *Chalcides sepoides* (Aud.) Yellow Sand Skink.
 Hab., northeast Africa to Syria.
 One specimen. Purchased.
51. *Chalcides ocellatus* (Forsk.) Oscellated Sand Skink.
 Hab., north Africa, Greece, Persia.
 Two specimens. Purchased.

OPHIDIA.

52. *Epicrates striatus* (Fisch.) San Domingo Tree Boa.
 Hab., San Domingo.
 One specimen. Purchased.
53. *Crotalus scutulatus* Kenn. Kennicott's Rattlesnake.
 Hab., northern Mexico; southwest United States.
 One specimen, received August 24th from E. Meyenberg, Pecos, Texas, is clearly referable to Kennicott's description and is quite distinct from other rattlesnakes of that region.

Other accessions of especial interest may be referred to:

A tawny rough-legged buzzard and an Aplomado falcon received in March from Pecos, Texas.

On March 15th Miss Sabina Loeb presented five Sagra's lizards (*Anolis sagræ*) from Cuba.

A pair of Arctic foxes from Iceland were presented May 28th by Carl Grübner, Wyncote, Pa. In view of the statement made forty years since by Prof. Alfred Newton, that in Iceland *Canis lagopus* rarely undergoes a seasonal change in color, it has been of interest to observe that at the date of their arrival the male was in the brown summer coat and has carried it unchanged through the winter, but the female was in the usual white winter coat and has so remained throughout the year.

Eight three-toed box tortoises (*Terrapene triunguis*) from Louisiana were received in May from the Academy of Natural Sciences, and on June 3d four coypus rats arrived as a gift from the New York Zoological Society.

An example of *Hypsiglena ochrorhyncha*, a snake not often represented in the collection, was received on July 4th from Seymour, Baylor County, Texas, a locality which seems likely to be about the northern limit of its range.

On August 29th Mr. Harry Nuding presented a valuable collection of mammals and birds, numbering twenty-nine specimens, brought by him from the Amazon. Some of these were new to the collection and have been already mentioned. Among the others were a gray lagothrix

monkey, a Cuvier's toucan, two razor-billed curassows, and a sun bittorn.

A pair each of llamas and aoudads were purchased in October. The second echidna (*Echidna aculeata*) which the Society has possessed was purchased on October 3d. The preceding one arrived at the Gardens on April 12th, 1887, and died on May 12th following. The present specimen has remained in apparent health up to the present time. It is unfortunate that the sluggish habit of the species and its disposition to bury itself as completely as the depth of earth in its cage will permit, affords little opportunity to the visitor to become acquainted with the external form of one of the two members of so remarkable a group as the monotremes, the lowest and most primitive of existing mammals.

A West Indian boa (*Boa diviniroqua*), presented November 12th by Mr. Clinton Brandt, and an Indian eryx (*Eryx johani*), presented by Mr. J. Hope, of Philadelphia.

On January 9th a female clouded leopard (*Felis nebulosa*) from Singapore was purchased to mate the fine male already in the collection, but as she is not fully mature they have not yet been placed together. The possession of a pair of these rare and beautiful animals is a noteworthy event.

A fine pair of white-tailed gnus, about adult, were purchased on January 23d. The one specimen formerly owned by the Society was a female and lived in the Antelope House from 1881 to 1894.

A pair of jungle fowl (*Gallus bankiva*) were presented on January 26th by Mr. Homer Davenport, of East Orange, N. J.

The following list enumerates the births of the year:—

- 2 pig-tailed macaques (*Macacus nemestrinus*), December 6th and 28th.
- 1 yellow baboon (*Papio cynocephalus*), ♀, March 19th.
- 2 tigers (*Felis tigris*), ♂♂, September 19th.
- 9 prairie wolves (*Canis latrans*), (4) April 18th, (5) May 9th.
- 6 gray wolves (*Canis mexicanus*), April 19th.
- 2 brown bears (*Ursus arctos*), January 7th.

- 1 black bear (*U. americanus*), January 30th.
- 2 hybrid bears (*Ursus horribilis*, ♂, *U. americanus*, ♀), February 23d.
- 5 prairie dogs (*Cynomys ludovicianus*), June.
- 5 gray wood rats (*Neotoma micropus*), June 13th.
- 1 American porcupine (*Erythizon dorsatus*), May 9th.
- 18 European rabbits (*Lepus cuniculus*).
- 1 Burchell's zebra (*Equus burchelli*), ♀, March 5th.
- 1 Persian wild ass (*E. onager*), ♂, December 31st.
- 1 wapiti (*Cervus canadensis*), ♀, July 2d.
- 1 fallow deer (*C. dama*), ♀, June 25th.
- 1 Japanese deer (*C. sika*), ♂, July 10th.
- 1 Malayan sambur (*C. equinus*), ♂, May 18th.
- 2 Virginia deer (*Mazama virginiana*), ♂♂, June 1st.
- 2 Mearns' deer (*M. texana*), ♂♀, June 18th.
- 1 American bison (*Bison bison*), ♂, August 13th.
- 4 Indian antelopes (*Antilope cervicapra*), 4♂, March, July, August, and December.
- 1 vulpine phalanger (*Trichosurus vulpecula*), January 21st.
- 4 robust kangaroos (*Macropus robustus*), August, October, December, and February.
- 2 red-necked wallabies (*M. ruficollis*), October 14th, December 29th.
- 7 silver pheasants (*Gennæus nycthemerus*), May 17th.
- 12 golden pheasants (*Chrysolophus pictus*), May 17th, June 2d.
- 4 wild turkeys (*Meleagris gallopavo*), July 18th.
- 12 common garter snakes (*Eutænia s. sirtalis*), July 11th.
- 18 common water snakes (*Tropidonotus s. sipedon*), October 8th.
- 11 banded water snakes (*T. s. fasciatus*), August 2d.
- 32 brown water snakes (*T. taxispilotus*), September 1st.
- 9 ground rattlesnakes (*Sistrurus miliaris*), August 7th.

Previous to the past winter all attempts to rear any of the numerous bears which have been born in the Gardens have failed. It is therefore satisfactory to note that the black bear born on January 30th is still living and is well cared for by the mother. Its first appearance outside of the den was on April 5th.

Few deaths of importance have occurred, the chief ones being two female lions in March; an albino Himalayan bear, purchased August 1st, 1890, died October 29th, 1903; a female zebra, born March 5th, 1903, died November 28th, and a male Somali buffalo, received December 10th, 1891, died December 27th, 1903.

A review of the pathological investigations carried on throughout the year is contained in the accompanying report of Dr. Penrose. From the beginning this work has been prosecuted with cautious avoidance of conclusions or publications not verified to the last detail. It must be obvious that in a field of investigation hitherto so little known, the labor and time required in confirming observations for which there is often no other authority, is very great, and when conducted in a fitting spirit of scientific reserve, progress is necessarily slow; but the store of observations and material is growing, and the importance of these researches both to the increase of knowledge and to the practical welfare of the collection has become so evident to the Board, that plans have been prepared for altering the old Palm House into an infirmary containing a receiving room for new arrivals, a hospital for the care of sick, especially in cases of disease suspected of being communicable to other animals, an operating room, and a laboratory designed for a more thorough study of all cases of death occurring in the Gardens than is possible under the system practiced during the past two years. The design includes an incinerating furnace for the destruction of waste material. This building will be erected out of the appropriation of \$5000 for permanent improvements, made by the City Councils through the Commissioners of Fairmount Park, and it seems proper that acknowledgment should be made here of the broad and intelligent co-operation on the part of these representatives of the city, which has enabled the Society to carry on this important work with facilities equal to the best.

Early in the year the closing of the street which formerly led to the back entrance of the Gardens, and the opening

of Zoological Street to Girard Avenue in place of it, cut a narrow strip off from the northwest boundary of the grounds, and required the removal of the greenhouses, barn, and other service buildings. These were reconstructed during the spring.

A double iron cage has been built near the Monkey House, with the intention of placing in it species which are able to endure our winters without other protection.

A large honey-locust tree just outside the western entrance of the Small Mammal House has been surrounded by a fence, forming a most attractive inclosure for raccoons. The tree has a large cavity at its base, and a hollow log, such as is a favorite retreat for these animals, was placed in the inclosure. With these natural retreats at hand, it is remarkable that the raccoons have chosen to pass the winter, even through its most severe storms, sleeping on the upper branches, forty or more feet above the ground.

While the year has been a satisfactory one in most respects as to the extent and condition of the collection, the need for more enclosures of many kinds has been severely felt. Opportunities have been missed of securing specimens of interest and importance, through want of room. The chief need at present is, perhaps, of a considerable addition to outdoor enclosures for native mammals and birds. With the limited means which can be yearly devoted to the purpose, the growth of this, from an educational standpoint most important part of the collection, must be slow. No extensive repairs have been required except the relaying of some asphalt walks in the central portion of the Gardens.

For the many gifts and courtesies received the Directors extend their thanks.

By order of the Board,

ARTHUR ERWIN BROWN,

Secretary.

INCOME AND EXPENDITURES.

For fiscal year ending February 29th, 1904.

INCOME.

Members' fees and dues	\$1,070 00	
Admission receipts	33,918 55	
Donations	100 00	
Rents at Gardens	250 00	
Interest, discount, &c.	1,009 33	
Sundry receipts	1,449 83	
Sale of guide books	67 00	
Sales of animals	618 00	
Received from the City of Philadelphia through the Commissioners of Fairmount Park	17,500 00	
		<u>\$55,982 71</u>

EXPENDITURES.

(Exclusive of Permanent Improvements, &c.)

Salaries and wages	\$19,565 33	
Office expenses	426 41	
General expenses	22,968 89	
Purchase of animals	4,798 66	
Temporary loan repaid to Permanent Fund	5,500 00	
		<u>\$53,259 29</u>
Balance to credit of profit and loss	2,723 42	
		<u>\$55,982 71</u>

CAPITAL.

For fiscal year ending February 29th, 1904.

RECEIPTS.

Life memberships	\$500 00	
Legacy, estate of George S. Pepper	825 00	
		<u>\$1,325 00</u>

EXPENDITURES.

Raccoon cage	\$403 94	
Wildcat cage	235 00	
		<u>\$638 94</u>
Balance (being excess of receipts over expendi- tures of capital)	686 06	
		<u>\$1,325 00</u>

HENRY T. COATES,

Treasurer.

Audited March 29th, 1904, and found correct.

STOCKTON BATES,

C. P. A.

LIST OF DEAD ANIMALS EXAMINED, WITH THE PATHOLOGICAL CONDITIONS FOUND.

77. Lioness (*Felis leo*).

Distention of the left uterine horn by a quart of pus;
abscess of left ovary; purulent peritonitis. Hyper-
trophy of thyroid gland, with cystic degeneration.

78. Lioness (*Felis leo*).

Tubercular pneumonia. Toxic nephritis. Round
worms in intestines.

79. Red-necked Wallaby (*Macropus ruficollis*).

Pathological examination negative.

80. Black Ape (*Cynopithecus niger*).

General miliary tuberculosis, with caseous pneumonia
of the lower lobe of the left lung.

81. Black Lemur (*Lemur macaco*).

Intramural hemorrhage of the uterus; arrested la-
bor; foetus protruding from external os; placenta
detached.

82. Black Lemur (*Lemur macaco*).

Pathological examination negative.

83. Brown-throated Conure (*Conorus æruginosus*).

Tuberculosis of lungs. Post mortem changes prevent
detailed examination.

84. Guinea Baboon (*Papio sphinx*).

General tuberculosis; caseous pneumonia of left lung.
Intestinal ulceration.

85. Red-handed Marmoset (*Midas midas*).

Impaction of feces, followed by rupture of the rectum
and hemorrhage into the peritoneum.

86. Swainson's Lorikeet (*Trichoglossus novæ-hollandiæ*).

Tuberculosis of the liver and pleura.

87. Yellow Baboon (*Papio cynocephalus*).

General tuberculosis.

88. Dark-backed Pigeon (*Columba phæonota*).

Tuberculosis of the liver.

89. Red Kangaroo (*Macropus rufus*).
Malignant papilloma of the stomach, with metastasis
to the liver, spleen, and kidneys.
90. Flamingo (*Phænicopturus ruber*).
Pathological examination negative.
91. Common Marmoset (*Hapale jacchus*).
Post mortem changes too advanced for pathological
examination.
92. Daubenton's Curassow (*Orex daubentonii*).
General tuberculosis, with marked pulmonary lesions.
Hemorrhage into the anterior mediastinum.
93. Levaillant's Amazon (*Chrysotis levaillanti*).
Acute enteritis. Intestinal nephritis, with secondary
parenchymatous changes.
94. Yellow-fronted Amazon (*Chrysotis ochrocephala*).
Tuberculosis of the liver.
95. White-fronted Amazon (*Chrysotis leucocephala*).
Tuberculosis of the liver.
96. Ganga Cockatoo (*Callocephalon galeatum*).
Tuberculosis of the liver.
97. Gray Parrot (*Psittacus erythacus*).
Enteritis.
98. Sooty Mangabey (*Cercocebus fuliginosus*).
General miliary tuberculosis, with caseous tubercu-
losis of the lower lobe of the left lung.
99. Yellow Hangnest (*Cassicus persicus*).
Enteritis.
100. Grand Eclectus (*Eclectus roratus*).
Enteritis.
101. Sooty Mangabey (*Cercocebus fuliginosus*).
General tuberculosis, with left-sided caseous pneu-
monia.
102. Blue-fronted Amazon (*Chrysotis æstiva*).
Acute enteritis.
103. Yellow Baboon (*Papio cynocephalus*).
General tuberculosis and caseous pneumonia of left
lung.
104. Orange-winged Amazon (*Chrysotis amazonica*).
Acute enteritis, nephritis.

105. Golden Pheasant (*Chrysolophus pictus*).
Catarrhal enteritis. Diffuse nephritis, with cyst formation. Intestinal parasites in mucosa.
106. Sooty Mangabey (*Cercocebus fuliginosus*).
General tuberculosis.
107. Great-billed Parrakeet (*Tanygnathus megalorhynchus*).
Tuberculosis of the liver; acute hemorrhagic nephritis.
108. Blood-breasted pigeon (*Phlogœnas luzonica*).
Tuberculosis of the liver.
109. Spotted Paca (*Cœlogenys paca*).
Pathological examination negative.
110. Yellow Baboon (*Papio cynocephalus*).
Acute enteritis, resembling typhoid infection in man; no ulceration.
111. Yellow Baboon (*Papio cynocephalus*).
General tuberculosis, with double caseous pneumonia.
112. Yellow Baboon (*Papio cynocephalus*).
General tuberculosis. Caseous pneumonia of the lower lobe of the left lung.
113. Sooty Mangabey (*Cercocebus fuliginosus*).
General tuberculosis, with caseous pneumonia of the left lung.
114. Yellow Baboon (*Papio cynocephalus*).
General tuberculosis, with caseous pneumonia of the left lung.
115. Black Spider Monkey (*Ateles ater*).
General anæmia.
116. Green Glossy Starling (*Lamprocolius chalybeus*).
Enteritis.
117. Chattering Lory (*Lorius garrulus*).
Miliary tuberculosis of peritoneum and lungs.
118. Black Lemur (*Lemur macaco*).
Tubercular pneumonia of right lung. Tuberculosis of the spleen.
119. Raven (*Corvus corax*).
Congestion of the lungs and pulmonary hemorrhage.
120. Beaver (*Castor canadensis*).
Post mortem changes too great for pathological examination.

121. Great Kangaroo (*Macropus giganteus*).
Acute nephritis.
122. Green Monkey (*Cercopithecus callitrichus*).
General miliary tuberculosis.
123. Prong-horned Antelope (*Antilocapra americana*).
Post mortem changes prevented pathological examination.
124. Prong-horned Antelope (*Antilocapra americana*).
Cirrhosis of the liver. Caseous broncho-pneumonia with induration (non-tubercular).
125. Himalayan Bear (*Ursus tibetanus*).
Chronic tuberculosis of lungs, with formation of cavities. Beginning miliary tuberculosis of the kidney.
126. Rose-crested Cockatoo (*Cacatua moluccensis*).
Pathological examination negative.
127. Green Monkey (*Cercopithecus callitrichus*).
Pathological examination negative.
128. Hamadryas Baboon (*Papio hamadryas*).
General tuberculosis. Double caseous pneumonia. Adherent pericardium.
129. Pig-tailed Macaque (*Macacus nemestrinus*).
General tuberculosis, including the pericardium.
130. Weeper Capuchin (*Cebus capucinus*).
Chronic enteritis.
131. Great White-crested Cockatoo (*Cacatua cristata*).
Tuberculosis of larynx and adjacent tissues. Chronic nephritis.
132. White-throated Cebus (*Cebus hypoleucus*).
Miliary tuberculosis of the lower lobe of the right lung.
133. Gray Lagotherix (*Lagotherix lagotrichus*).
An acute infectious process of undetermined character, probably originating in the intestinal tract. Enlarged thymus gland.
134. Zebra (*Equus burchelli*).
Chronic enteritis resulting from the presence of an enormous number of round worms in the small intestine. Chronic parenchymatous nephritis.

135. Nylghaie Antelope (*Boselaphus tragocamelus*).
Chronic enteritis.
136. White-crowned Mangabey (*Cercocebus æthiops*).
General tuberculosis. Caseous pneumonia of the
lower lobe of the right lung.
137. Vervet Monkey (*Cercopithecus pygerythrus*).
Gastro-enteritis—an infectious process resembling
typhoid in man. No intestinal ulceration. Con-
gestion of liver, spleen, pancreas, and kidneys.
138. Wild Cat (*Felis ruffus*).
Abscess of the external ear.
139. Red-vented Parrot (*Pionus menstruus*).
Acute enteritis.
140. Gray Parrot (*Psittacus erythacus*).
Chronic enteritis. *Tænia lystosoma* Diesing.
141. Sloth (*Cholæpus sp.*).
Chronic ulcer of scalp. *Filaria incrassata* Molin.
Tapeworm of undetermined character.
142. European Wild Cat (*Felis catus*).
Pathological examination negative.
143. East African Buffalo (*Bos æquinoctialis*).
Acute gastritis.
144. Black Swan (*Cygnus atratus*).
Acute enteritis. Secondary nephritis.
145. Ganga Cockatoo (*Callocephalon galeatum*).
146. White-collared Mangabey (*Cercocebus collaris*).
General tuberculosis.

TABLE OF DISEASES, OTHER THAN TUBERCULOSIS, WITH THE
VARIETY AND NUMBER OF ANIMALS AFFECTED.

Enteritis	12 birds.	3 monkeys.	1 zebra.
	1 nylghaie.		
Acute gastritis	1 African buffalo.		
Nephritis	7 birds.	1 monkey.	1 zebra.
	1 lion.	1 kangaroo.	
Broncho-pneumonia	1 prong-horned antelope.		
Congestion of lungs	1 raven.		
Cirrhosis of liver	1 prong-horned antelope.		
Malignant papilloma of stomach	1 kangaroo.		

Abscess of ovary	1 lioness.	
Abscess of ear	1 wild cat.	
Peritonitis	1 lioness.	
Abscess of uterine horn	1 lioness.	
Intramural hemorrhage of uterus	1 lemur.	
Anæmia	1 monkey.	
Enlarged thymus	1 lagothrix.	
Rupture of rectum	1 marmoset.	
Ulcer of scalp	1 sloth.	
Hypertrophy of thyroid gland	1 lioness.	
Parasites:—		
Round worms	1 lioness.	1 zebra.
Tape worm	1 sloth.	1 parrot.
<i>Filaria incrassata</i> Molin	1 sloth.	

TABLE SHOWING THE ANATOMICAL DISTRIBUTION OF TUBERCULAR LESIONS IN 57 ANIMALS EXAMINED DURING THE PAST TWO YEARS.

NUMBER AND KIND OF ANIMALS.	NUMBER OF TIMES IN WHICH THE VARIOUS STRUCTURES WERE INVOLVED.										
	Lungs.	Spleen.	Liver.	Kidney.	Peritoneum.	Mesenteric lymph glands.	Small intestine.	Pericardium.	Heart.	Larynx.	Vertebra.
36 monkeys	36	32	25	25	20	25	2	2	2	.	.
Prong horned ante- lope . . . . .	.	.	.	.	.	.	.	.	.	.	1
Paradoxure	1	.	.	.	.	.	.	.	.	.	.
Nylghaie	1	1	1	.	.	1	.	.	.	.	.
Binturong	1	1	.	1	.	1	1	.	.	.	.
Ichneumon	1	.	.	1	1	.	.	.	.	.	.
Lion	1	.	.	.	.	.	.	.	.	.	.
Lemur	1	1	.	.	.	.	.	.	.	.	.
Himalayan bear	1	.	.	1	.	.	.	.	.	.	.
Chimpanzee	1	1	.	.	1	1	1	.	.	.	.
12 birds	3	.	9	1	2	1	.	.	.	1	.

The examinations here recorded were made by Dr. C. Y. White at the Pepper Clinical Laboratory during the period from March 1st, 1903, to February 29th, 1904.

CHARLES B. PENROSE, M. D.

LIST OF ADDITIONS TO THE MENAGERIE DURING THE YEAR
ENDING FEBRUARY 29TH, 1904.

1903.

- March 2. 1 Salle's amazon, 1 tawny rough-legged buzzard, 1 aplomado falcon purchased. 7 western meadow larks presented by E. Meyenberg, Pecos, Texas.
- " 3. 13 undulated grass parakeets, 2 chestnut-eared finches, 2 common waxbills, 1 bullfinch purchased.
- " 5. 1 Burchell's zebra (♀) born in the Gardens. 1 pig-tailed macaque purchased.
- " 6. 2 diamond rattlesnakes, 2 ground rattlesnakes, 3 black snakes, 2 garter snakes, 1 glass snake, 1 keeled green snake, 1 hog-nosed snake, 2 king snakes, 1 scarlet snake purchased.
- " 7. 1 black spider monkey purchased.
- " 9. 2 Azara's foxes (♂ and ♀) purchased. 1 alligator presented by William H. Griffing, Philadelphia.
- " 11. 1 Indian antelope (♂) born in the Gardens.
- " 13. 1 red howling monkey purchased.
- " 14. 1 crow presented by Master R. Courtland Brenizer, Philadelphia. 1 water snake presented by Miss Phyllis K. Lane, Norwood, Pa. 4 DeKay's snakes, 6 garter snakes presented by George Tuthill, Philadelphia.
- " 18. 4 green lizards, 5 Sagra's lizards presented by Miss Sabina Loeb, Philadelphia. 14 garter snakes, 5 DeKay's snakes, 2 water snakes presented by Louis O. Thompson, Norwood, Pa. 3 alligators presented by Mrs. B. Harrar, Philadelphia.
- " 19. 1 vervet monkey presented by W. H. Maule, Villa Nova, Pa. 9 garter snakes, 1 DeKay's snake, 2 brook frogs presented by Louis O. Thompson, Norwood, Pa.
- " 21. 1 gray wood rat, 1 least horned lizard presented by E. Meyenberg, Pecos, Texas. 1 Virginia rail presented by W. Wilkins Simpser, Philadelphia.
- " 23. 1 garter snake, 1 water snake presented by Louis O. Thompson, Norwood, Pa.
- " 24. 2 kangaroo rats, 2 Mobile terrapins, 1 red-eared terrapin purchased. 1 flicker presented by Cugley & Mullin, Philadelphia.
- " 26. 1 gray wood rat, 2 water moccasins, 1 harlequin snake, 4 black snakes, 4 garter snakes, 7 hog-nosed snakes, 1 pine snake, 1 ring-necked snake, 1 scarlet snake, 2 whip snakes, 13 water snakes, 3 cyclops water snakes purchased.
- " 27. 1 mongoose lemur, 2 yellow sparrows purchased. 2 European rabbits born in the Gardens.
- " 28. 1 weeper cebus presented by Dr. A. Newlin, Philadelphia. 5 desert mice purchased. 1 alligator presented by Master David, Yeager, Philadelphia.
- " 29. 1 alligator presented by Miss Sadie Glover, Philadelphia.
- " 30. 1 blue and yellow macaw presented by Mrs. Clement A. Griscom Philadelphia.

- March 31. 1 wood rat, 1 kangaroo rat, 4 desert mice, 1 western diamond rattlesnake, 1 Say's pine snake purchased. 1 alligator presented by Miss Elizabeth E. Wildemore, Philadelphia.
- April 1. 1 alligator presented by George Livingston, New York.
- " 2. 2 barn owls presented by Charles Ledig & Co., Philadelphia.
- " 3. 2 diamond rattlesnakes, 2 ground rattlesnakes, 4 harlequin snakes, 4 water moccasins, 17 black snakes, 2 garter snakes, 18 hog-nosed snakes, 1 indigo snake, 4 whip snakes, 11 common water snakes purchased.
- " 4. 1 canvas-backed duck purchased. 1 alligator presented by L. Terry, Philadelphia.
- " 5. 1 red-tailed buzzard presented by Dr. E. F. Walsh, Philadelphia.
- " 7. 1 kangaroo rat, 1 wood rat, 1 desert mouse, 1 western diamond rattlesnake, 1 whip snake purchased.
- " 8. 3 Brazilian tortoises purchased.
- " 11. 1 red-tailed buzzard presented by Samuel E. Lehman, Camden, N. J.
- " 12. 2 rainbow snakes, 1 black snake, 1 brown water snake purchased.
- " 14. 2 Indian chevrotains, 2 rosy parakeets purchased.
- " 15. 1 desert mouse presented by E. Meyenberg, Pecos, Texas.
- " 18. 4 prairie wolves born in the Gardens. 1 prong horn (♀) exchanged.
- " 19. 6 gray wolves born in the Gardens.
- " 20. 1 ferret presented by Edwin F. Droughman, Philadelphia. 1 Marcy's garter snake, 2 Marcy's wave-lined lizards presented by E. Meyenberg, Pecos, Texas.
- " 21. 4 ruddy flamingoes purchased. 1 alligator presented by Edward H. Trotter, Jr., Philadelphia.
- " 22. 1 white-tailed kangaroo rat, 4 rainbow snakes, 2 black snakes, 1 whip snake, 1 least horned lizard, 8 tessellated lizards, 19 Stansbury's uta lizards purchased.
- " 23. 1 common macaque presented by Frank Downing, Media, Pa.
- " 24. 1 short-billed toucan purchased. 2 Stansbury's uta lizards presented by E. Meyenberg, Pecos, Texas.
- " 27. 5 least horned lizards presented by E. Meyenberg, Pecos, Texas.
- " 29. 2 gray wood rats, 3 spotted-necked garter snakes, 1 Marcy's garter snake, 5 common horned lizards, 4 Poinsett's scaly lizards purchased.
- " 30. 1 Gouldian grass finch, 1 beautiful grass finch, 2 agile lizards, 2 wave-lined lizards purchased. 1 chewink presented by John F. O'Donnell, Philadelphia.
- May 1. 1 crab-eating raccoon, 1 pig-tailed macaque, 1 adjutant stork purchased. 2 raccoons presented by Richard Neuton, Philadelphia.
- " 2. 1 Mexican sphermophile, 12 common horned lizards purchased. 1 alligator presented by Master George C. MacMackin, Philadelphia.
- " 4. 1 western diamond rattlesnake, 7 common horned lizards, 18 least horned lizards, 1 painted box tortoise, 1 gray wood rat, 1 Say's bull snake, 3 whip snakes, 1 hog-nosed snake, 1 king snake, 2 black snakes, 1 banded water snake, 1 brown water snake, 3 least horned lizards, 3 Marcy's wave-lined lizards, 1 Holbrook's lizard purchased.
- " 5. 6 nonpareil buntings, 4 indigo buntings, 1 blue grosbeak purchased.
- " 6. 2 ganga cockatoos, 2 gray parrots, 2 cactus conures, 2 Gouldian grass finches purchased.

- May 8. 4 red-headed ducks, 6 blue-winged teal, 3 green-winged teal purchased. 1 alligator presented by Mrs. W. J. Niles, Philadelphia.
- " 9. 1 brown thrush presented by Miss Mamie Cugley, Philadelphia. 1 painted terrapin presented by Abram R. Cox, Philadelphia. 5 prairie wolves born in the Gardens.
- " 10. 1 alligator presented by Miss Elsie Kuemmerle, Philadelphia.
- " 11. 1 yellow-bellied black snake, 1 Le Conte's snake, 2 Sonoran skinks purchased.
- " 13. 2 snapping turtles presented by William F. Schmid, Philadelphia.
- " 14. 5 Canada porcupines purchased.
- " 15. 1 California pine snake, 4 Pacific ring-necked snakes, 1 yellow-bellied black snake, 9 many-keeled lizards purchased. 1 Canada porcupine born.
- " 16. 1 orange-winged amazon presented by Master Wilbur Jackson, Philadelphia. 1 vinaceous amazon, 1 pine snake, 2 harlequin snakes, 4 brown water snakes purchased. 2 green lizards presented by Miss Florence Scott, Philadelphia.
- " 17. 7 silver pheasants, 4 golden pheasants born in the Gardens. 1 alligator presented by Master J. Albert Tyre, Philadelphia.
- " 18. 1 great-horned owl presented by Samuel Land, Philadelphia. 1 spotted-necked garter snake, 1 mitre snake, 1 Pacific ring-necked snake, 1 painted terrapin purchased.
- " 19. 2 indigo buntings purchased.
- " 21. 1 beautiful grass finch purchased. 5 European rabbits born in the Gardens.
- " 22. 1 raccoon presented by H. M. Stine, Fort Hunter, Pa.
- " 23. 1 Emory's snake, 1 Lindheimer's snake, 3 Graham's water snakes, 1 Holbrook's water snake, 1 Say's king snake, 1 Le Conte's snake, 4 western sand snakes, 2 western diamond rattlesnakes purchased.
- " 24. 1 Blainville's horned lizard presented by Master Louis Hanson, Philadelphia.
- " 25. 1 pine snake, 1 Say's bull snake, 3 Marcy's garter snakes purchased.
- " 26. 1 canvas-backed duck, 2 wood ducks, 4 little black-headed ducks purchased. 1 brown thrush presented by William P. Wood, Philadelphia.
- " 27. 1 Indian cobra, 1 kestrel, 1 Woodhouse's water snake purchased.
- " 28. 2 Arctic foxes presented by Carl Grünau, Wyncote, Pa. 6 European rabbits born in the Gardens. 1 alligator presented by A. H. Christ, Philadelphia. 1 spotted-necked garter snake, 2 Marcy's garter snakes, 1 whip snake, 1 least horned lizard purchased.
- " 29. 8 three-toed box tortoises presented by the Academy of Natural Sciences, Philadelphia. 2 banded rattlesnakes, 1 Say's king snake, 3 cotton rats purchased. 1 red-headed cardinal presented by John Paxson, Philadelphia.
- " 30. 2 spotted-sided finches purchased. 1 great-horned owl presented by Charles H. McDowell, Philadelphia.
- " 31. 2 rainbow snakes presented by George F. Brice, Waterlily, N. C. 2 milk snakes presented by Samuel W. Harrison, Media, Pa.
- June 1. 2 common deer born in the Gardens.

- June 2. 8 golden pheasants born in the Gardens. 2 western sand snakes, 1 collared lizard, 1 leopard collared lizard purchased.
- " 3. 4 coypus presented by New York Zoological Society. 2 toque macaques, 2 western nightingales, 1 European robin, 2 cut-throat finches, 1 red-headed weaver, 1 Java sparrow, 1 green finch, 1 African silverbill, 1 chestnut-bellied finch, 1 black-headed finch purchased. 1 raccoon presented by S. M. Paxson, Philadelphia. 1 opossum and 8 young presented by William Mead, Philadelphia. 1 brown salamander presented by T. B. Manley, Philadelphia.
- " 4. 4 American green lizards presented by George E. Lippincott, Philadelphia.
- " 6. 2 snapper turtles presented by Mrs. Joshua T. Thorp, Penn's Grove, N. J. 1 raccoon presented by Mrs. M. Shephard, Philadelphia.
- " 8. 1 Emory's snake purchased.
- " 9. 1 raccoon presented by the Misses Cresson, Norristown, Pa. 1 desert mouse, 1 collared lizard, 1 Holbrook's lizard purchased.
- " 11. 1 opossum and 10 young presented by J. T. Wood, Williamstown, N. J. 1 common marmoset presented by Mrs. A. Hirsh, Philadelphia. 1 banded rattlesnake purchased.
- " 12. 1 Le Conte's snake, 1 Say's bull snake purchased.
- " 13. 5 gray wood rats born in the Gardens. 1 opossum presented by Ray Weber, Philadelphia. 2 ospreys, 2 Petz's conures, 2 yellow-winged sugar birds, 2 yellow-tailed troupials, 1 gray clarin, 1 Lesson's motmot, 4 gopher tortoises purchased.
- " 15. 1 western diamond rattlesnake purchased.
- " 16. 1 green turtle presented by William F. Schmid, Philadelphia. 1 pine snake purchased.
- " 17. 1 lesser Cuvier's toucan; 1 blue-crowned conure purchased.
- " 18. 2 Mearn's deer born in the Gardens. 1 St. Thomas conure presented by Mrs. Yust, Philadelphia.
- " 19. 1 common water snake presented by Leon Olivit, Philadelphia.
- " 20. 2 white-tailed kangaroo rats, 5 gray wood rats, 1 turkey vulture, 1 western diamond rattlesnake, 1 Say's pine snake, 1 western sand snake, 1 Marcy's wave-lined lizard, 1 tessellated lizard purchased. 1 tree frog presented by Roy S. Humbert, Lansdowne, Pa. 4 Amherst's pheasants born in the Gardens.
- " 21. 3 Say's pine snakes, 5 western sand snakes, 9 Say's king snakes, 1 Emory's snake purchased. 1 alligator presented by Miss Alice Hooker, Philadelphia.
- " 22. 2 pine snakes purchased. 1 alligator presented by Miss Littlefield, Philadelphia.
- " 23. 1 white-tailed kangaroo rat, 3 western diamond rattlesnakes, 2 Say's bull snakes, 2 western sand snakes, 10 Woodhouse's water snakes, 1 collared lizard, 1 leopard collared lizard, 2 tessellated lizards, 2 Holbrook's lizards purchased.
- " 24. 1 black-headed mynah purchased.
- " 25. 1 fallow deer born in the Gardens. 1 raccoon presented by John M. Warner, Camden, N. J. 1 gray clarin presented by Mr. Louis Ruhe, New York.
- " 26. 2 box tortoises presented by Master Harrison Simpson, Philadelphia. 1 alligator presented by Norman Kelly, Philadelphia.

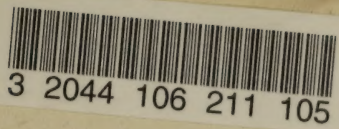
- June 27. 1 Egyptian monitor purchased.
 " 28. 1 alligator presented by J. F. Brown, Philadelphia.
 " 29. 1 woodchuck presented by Harry Simons Hill, Philadelphia. 1 western diamond rattlesnake purchased.
 " 30. 1 lesser sulphur-crested cockatoo presented by Miss Mary B. Jackson, Philadelphia.
- July 1. 3 gopher tortoises purchased.
 " 2. 1 elk born in the Gardens. 4 bullfrogs presented by Joseph Morrison, Philadelphia.
 " 3. 1 northern gray squirrel presented by Mrs. W. Pierce, Spring Mills, Pa. 3 water moccasins, 1 diamond rattlesnake, 4 ground rattlesnakes, 1 chicken snake, 5 indigo snakes, 1 scarlet snake purchased.
 " 4. 4 western diamond rattlesnakes, 1 Say's rattlesnake, 1 yellow-bellied black snake, 4 Le Conte's snakes, 1 Irwin's snake purchased. 1 alligator presented by Mr. Edward Justus, Philadelphia.
 " 5. 2 wave-lined lizards presented by H. Walters, Philadelphia.
 " 6. 1 common water snake presented by Master Douglas March, Philadelphia.
 " 7. 1 pine snake presented by George W. Graves, Leesburg, N. J. 3 gray foxes purchased.
 " 8. 1 red fox presented by Mrs. Bosch, Philadelphia.
 " 9. 1 alligator presented by Master Nathan Wolf, Philadelphia. 2 chattering lories, 1 purple-capped lory, 1 gray parrot, 2 brown-throated conures, 2 Petz's conures, 1 golden oriole, 3 blue-headed wagtails, 1 Cope's terrapin, 31 European green lizards purchased.
 " 10. 1 Japanese deer born in the Gardens.
 " 11. 1 Chinese mynah purchased. 2 screech owls presented by Mrs. Ada Howerten, Philadelphia. 12 garter snakes born in the Gardens.
 " 13. 2 green glossy starlings, 1 spotted-necked garter snake, 1 western sand snake purchased.
 " 15. 1 Indian antelope born in the Gardens.
 " 16. 1 alligator presented by Henry Hughes, Philadelphia.
 " 18. 4 white ibis, 2 Louisiana herons purchased. 4 wild turkeys born in the Gardens. 1 loggerhead turtle presented by Andrew Shull, Philadelphia.
 " 19. 2 fish hawks presented by Herbert Chubb, Philadelphia.
 " 22. 3 banded rattlesnakes purchased. 1 nighthawk presented by E. L. Morse, Philadelphia.
 " 23. 2 European rabbits born in the Gardens. 2 white-shafted francolins, 2 pin-tailed whydah birds, 1 western nightingale, 1 willow warbler purchased.
 " 25. 1 American green lizard presented by Elmer Mayer, Philadelphia.
 " 28. 1 yellow-billed cuckoo presented by W. Allison, Philadelphia. 1 American green lizard presented by Master Jacob S. Henszey, Philadelphia.
 " 29. 1 purple gallinule presented by Miss Mamie Cugley, Philadelphia. 6 western diamond rattlesnakes, 3 Say's rattlesnakes, 7 Say's bull snakes, 1 Emory's snake purchased.
- Aug. 1. 2 wild cats, 2 Javan cats, 2 raccoon-like dogs, 1 Siberian marmot, 1 Say's king snake purchased.

- Aug. 2. 11 banded water snakes born in the Gardens. 2 American green lizards presented by H. Walters, Philadelphia.
- " 4. 1 Graham's leaf-nosed snake, 1 Texas whip snake purchased.
- " 5. 1 garter snake presented by Miss Mamie Cugley, Philadelphia. 1 fox squirrel presented by Mrs. Julia Leister, Philadelphia. 1 barn owl presented by Oliver Daniels, Gibbstown, N. J.
- " 7. 1 canary finch presented by Mrs. George Schall, Philadelphia. 2 garter snakes presented by Master Douglas March, Philadelphia. 9 ground rattlesnakes born in the Gardens.
- " 10. 1 alligator presented by Frank Worrall, Philadelphia. 1 western diamond rattlesnake, 1 Marcy's garter snake purchased.
- " 12. 2 box tortoises presented by Master Edward Roller, Philadelphia. 1 wave-lined lizard presented by Edward Helmbold, Philadelphia.
- " 13. 4 yellow-shouldered whydah birds, 1 European robin, 1 green jay, 1 chattering lory, 1 rosehill parakeet, 1 Gouldian grass finch, 1 common boa, 2 nine-banded armadillos, 1 three-banded night monkey purchased.
- " 14. 1 garter snake presented by Miss Mamie Cugley, Philadelphia. 1 red-tailed buzzard presented by Charles Hinkle, Philadelphia. 1 Levaillant's amazon presented by L. Fox, Philadelphia.
- " 15. 1 red river hog, 1 wart hog purchased.
- " 18. 1 green monkey, 2 white-fronted amazons purchased. 2 alligators presented by Harry Souder, Philadelphia. 1 least bittern presented by D. March, Philadelphia.
- " 19. 2 western diamond rattlesnakes, 1 Irwin's snake purchased.
- " 20. 1 black bear cub (brown variety) presented by Miss Frances C. Griscom, Haverford, Pa.
- " 21. 1 red-tailed buzzard presented by Martin G. Brumbaugh, Philadelphia. 2 yellow-backed whydah birds purchased.
- " 24. 1 Kennicott's rattlesnake purchased.
- " 25. 1 Indian antelope born in the Gardens.
- " 28. 1 common marmoset presented by P. F. Hoffman, Hammonton, N. J. 1 robust kangaroo born in the Gardens.
- " 29. 2 brown capucins, 1 gray lagothrix, 2 ring-tailed coatis, 3 hairy-rumped agoutis, 1 golden-rumped agouti, 1 acouchy, 1 Brazilian cardinal, 1 guira cuckoo, 1 Cuvier's toucan, 1 red and yellow macaw, 1 red under-winged dove, 2 razor-billed curassows, 2 Cayenne rail, 1 sun bittern, 1 great white heron, 2 Brazilian tree ducks, 1 boa constrictor presented by Harry Nuding, Philadelphia. 2 gray squirrels presented by H. L. Stiles, Philadelphia.
- " 30. 2 alligators presented by Harry P. Resch, Camden, N. J. 2 musk tortoises presented by H. A. Waters, Philadelphia.
- Sept. 1. 1 great-horned owl presented by Jacob Hope, Philadelphia. 32 brown water snakes born in the Gardens.
- " 2. 2 Indian civets purchased.
- " 3. 1 black lemur, 2 chameleons purchased. 1 American coot presented by Frederick Young, Rosemont, Pa. 1 Say's pine snake presented by J. M. Phillips, Carlisle, Pa.
- " 5. 1 Graham's leaf-nosed snake purchased.
- " 6. 1 chameleon, 1 Moorish gecko, 2 green lizards, 3 wall lizards purchased. 1 milk snake presented by Roy S. Humbert, Lansdowne, Pa. 1 pine snake presented by Jacob Haas, Philadelphia.

- Sept. 7. 2 musk tortoises presented by Thomas Pearsall, Philadelphia.
 " 8. 4 West-African love birds purchased.
 " 9. 1 keeled green snake presented by R. B. Simon, Olney, Pa.
 " 10. 1 green lizard presented by Mrs. L. H. Ewing, Philadelphia. 1 painted terrapin presented by Master Ward Seeley, Philadelphia.
 " 12. 1 common macaque presented by C. C. Worthington, Shawnee-on-De-
 aware, Pa. 1 alligator presented by Percy J. Meade, Philadelphia.
 " 13. 1 spotted newt presented by Miss Jennie Gohl, Philadelphia.
 " 15. 2 common marmosets presented by Madame DeAngeli, Philadelphia.
 " 16. 1 turtle dove presented by John Lover, Philadelphia.
 " 19. 2 Bengal tigers born in the Gardens. 1 San Domingo tree boa pur-
 chased.
 " 20. 1 spotted newt presented by William Peraria, Philadelphia.
 " 23. 2 spotted newts presented by Master F. Raymond Taylor, Philadelphia.
 " 26. 1 brown thrush presented by George Howard, Philadelphia. 2 green
 lizards presented by Master Curtis G. Tice, Wyncote, Pa.
 " 27. 1 Maryland yellow-throat presented by John Janz, Philadelphia.
 " 29. 1 woodchuck presented by Miss Daisy McCadden, Philadelphia.
 " 30. 1 alligator presented by W. W. Mintzer, Philadelphia.
- Oct. 3. 1 common macaque purchased. 1 wild cat presented by John S. Gus-
 tine, Jr., Devon, Pa. 1 Formosan macaque, 1 East Indian porcu-
 pine, 2 great gray kangaroos, 1 echidna purchased. 1 copperhead
 presented by Dr. Arthur P. Hitchens, Philadelphia.
 " 4. 2 painted terrapins presented by Master Fred A. Willits, Philadel-
 phia. 1 alligator presented by William Reauveau, Jr., Philadel-
 phia.
 " 5. 1 common macaque presented by Fred H. Humphreys, Philadelphia.
 1 milk snake presented by Master David L. Hoffman, Philadel-
 phia.
 " 6. 1 milk snake presented by Louis C. Janssen, Philadelphia.
 " 8. 18 common water snakes born in the Gardens. 1 diamond rattlesnake,
 2 ground rattlesnakes, 2 harlequin snakes, 8 water moccasins, 5
 black snakes, 4 hog-nosed snakes, 2 indigo snakes, 2 king snakes,
 1 whip snake, 1 American glass snake purchased.
 " 13. 2 aoudads, 2 llamas purchased. 1 European magpie presented by Mrs.
 S. W. Howes, Philadelphia.
 " 14. 1 robust kangaroo, 1 red-necked wallaby, 2 European rabbits born in
 the Gardens. 1 golden-naped amazon presented by Miss Emma
 Evans, Newark, Del. 1 garter snake presented by George P.
 Kirkpatrick, Philadelphia.
 " 15. 3 meadow mice presented by Master D. March, Philadelphia.
 " 16. 1 brown-fronted macaw purchased.
 " 17. 1 painted terrapin presented by Mrs. J. B. McCullough, Philadelphia.
 " 18. 5 garter snakes, 1 DeKay's snake presented by Master D. March,
 Philadelphia.
 " 20. 1 screech owl presented by M. Purcell, Philadelphia.
 " 21. 2 alligators presented by J. J. Longenecker, Berwyn, Pa.
 " 22. 1 European land tortoise, 5 box tortoises presented by Mrs. William
 A. Hampton, Philadelphia. 3 garter snakes, 1 DeKay's snake, 3
 spotted newts presented by Master D. March, Philadelphia. 1
 Say's rattlesnake, 1 whip snake, 1 Say's pine snake, 3 collared

- lizards, 7 Marcy's wave-lined lizards, 1 tessellated lizard purchased.
- Oct. 24. 1 box tortoise presented by Miss Branstder, Philadelphia. 1 alligator presented by Master Henry L. Homer, Lansdowne, Pa.
- " 25. 1 painted terrapin presented by Master D. Owens Stephens, Philadelphia.
- " 28. 2 laughing kingfishers purchased.
- " 29. 1 golden-shafted woodpecker presented by Miss Mamie Cugley, Philadelphia. 2 crested pigeons, 2 green-winged doves purchased.
- " 30. 1 red-tailed buzzard presented by Milton C. Hamburg, Douglassville, Pa. 2 Cunningham's skinks, 2 starred lizards purchased. 2 brook frogs, 11 marbled salamanders presented by Julius Hurter, St. Louis, Mo.
- " 31. 1 sloth presented by Frederick Mitchell, New York. 1 sloth purchased. 1 meadow mouse presented by D. March, Philadelphia. 1 DeKay's snake presented by Jay M. Fisher, Philadelphia. 1 alligator presented by Samuel Staton, Philadelphia.
- Nov. 2. 1 Carolina rail, 1 kingfisher presented by George Settle, Philadelphia.
- " 3. 1 rhesus monkey presented by S. C. Weaver, Baltimore, Md. 1 red salamander presented by H. E. Thompson, Philadelphia.
- " 7. 1 common garter snake presented by H. C. Young, Philadelphia. 1 green lizard presented by Miss Helen McFarland, Philadelphia. 1 alligator presented by Master Howard Hirst, Philadelphia.
- " 10. 1 hawk-bill turtle, 4 Brazilian tortoises, 1 spotted terrapin, 1 box tortoise purchased. 2 hermit thrushes, 1 gray-checked thrush, 2 chickadees, 2 yellow-rumped warblers, 2 bluebirds, 2 chipping sparrows, 2 song sparrows, 2 snow birds purchased.
- " 12. 1 West India boa presented by Clinton Brandt, Philadelphia. 1 woodcock presented by William A. Carpenter, Philadelphia.
- " 13. 1 diamond rattlesnake, 2 ground rattlesnakes, 2 harlequin snakes, 1 water moccasin, 1 chicken snake, 3 keeled green snakes, 6 hog-nosed snakes, 5 indigo snakes purchased.
- " 15. 1 American green lizard presented by Henry Clay, Fernwood, Pa.
- " 17. 1 Indian eryx presented by J. Hope, Philadelphia.
- " 19. 1 Indian civet, 2 pectoral tanagers, 1 violet tanager, 1 European robin, 2 pine siskins, 1 tree sparrow, 1 white-throated sparrow, 2 amadavine finches, 2 pale-headed parakeets, 8 pairs undulated grass parakeets, 4 pairs crested ground parakeets, 5 western diamond rattlesnakes purchased.
- " 20. 1 opossum presented by J. C. Van Hekle.
- " 21. 1 spotted terrapin presented by Master Walter F. Hays, Philadelphia.
- " 22. 1 Blainville's horned lizard presented by Harry Salmon, Philadelphia.
- " 26. 2 wave-lined lizards presented by Frank Underwood, Philadelphia.
- Dec. 6. 1 alligator presented by Simon Henry Sykes, Philadelphia.
- " 7. 1 brown cebus presented by Mrs. T. E. Robinson, Philadelphia.
- " 9. 2 Chinese turtle doves purchased.
- " 11. 2 ganga cockatoos, 2 Barraband's parakeets, 2 Bichenos' finches, 2 banded finches purchased.
- " 14. 3 opossums presented by Robert D. Griskey, Philadelphia.
- " 17. 1 white-eared conure, 1 thick-billed tanager, 1 tree sparrow, 1 fox sparrow purchased.

- Dec. 19. 1 Indian antelope (♂) born in the Gardens.
 " 22. 1 black rat presented by Major John T. Knight, U. S. A.
 " 24. 1 red-tailed buzzard presented by Joseph Hesch, Philadelphia.
 " 25. 1 red-tailed buzzard presented by Jacob Stackhouse, Andalusia, Pa.
 " 31. 1 Persian wild ass (♂) born in the Gardens.
- 1904.
- Jan. 3. 4 Hutchin's geese, 1 snow goose, 1 blue goose, 2 pintail ducks, 1 gad-wall, 1 widgeon purchased.
 " 6. 1 great-horned owl presented by H. S. Baker. 1 tigrine salamander presented by George H. Schrader, New York.
 " 7. 2 brown bears born in the Gardens.
 " 8. 1 white-backed piping crow, 1 wandering tree pie, 1 pale-headed parakeet, 2 crested pigeons, 2 banded grass finches, 3 long-tailed grass finches, 2 Senegal parrots, 2 Pennant's parakeets purchased.
 " 9. 1 clouded leopard, 1 European lynx, 1 glossy starling, 1 Argentine tanager purchased.
 " 10. 2 melodious finches presented.
 " 12. 1 wood thrush, 1 tree sparrow purchased.
 " 19. 1 white-fronted amazon presented by M. J. Groff, Philadelphia.
 " 20. 4 red-tailed buzzards presented by C. E. Smith, Moorestown, N. J.
 " 23. 2 white-tailed gnus (♂ and ♀) purchased.
 " 26. 2 jungle fowl presented by Homer Davenport, East Orange, N. J.
 " 27. 1 black-eared marmoset, 1 shama thrush, 4 black ducks, 4 mallards purchased.
 " 28. 8 pine snakes, 3 king snakes, 1 hog-nosed snake, 1 banded water snake purchased.
 " 29. 4 Bohemian waxwings purchased.
 " 30. 1 black bear born in the Gardens.
 " 31. 4 common garter snakes, 1 DeKay's snake presented by H. A. Walters, Philadelphia.
- Feb. 4. 1 red-tailed buzzard presented by Harry A. Smith, Philadelphia. 1 alligator presented by John O'Connell, Philadelphia.
 " 6. 1 sparrow hawk presented by Master George H. Masland, Holmsburg, Pa.
 " 11. 1 alligator presented by Master Benjamin Goodman, Philadelphia.
 " 12. 2 yellow-winged parakeets purchased.
 " 15. 1 roseate cockatoo presented by John T. Butterworth, Philadelphia.
 " 22. 2 hybrid grizzly and black bears born in the Gardens.
 " 23. 1 robust kangaroo born in the Gardens.
 " 24. 1 black-eared marmoset presented by Dr. C. P. Franklin, Philadelphia.
 " 26. 1 horned grebe presented by Samuel O. Ross, Vincentown, N. J.
 " 27. 1 Indian dial bird purchased.
 " 29. 1 raccoon presented by J. H. Burbank, Philadelphia.



3 2044 106 211 105

